

LIEFERSCHEIN A0183976

BE Aerospace Consumables
Nordportbogen 6
22848 Norderstedt, D
Deutschland

Rechnungsanschrift:
B/E Aerospace, Inc.
Consumables Management
10000 NW 15th Terrace
Miami, FL, USA 33172
USA

Datum: 07.Mrz.2014
Seite: 1

Ihre EB-Nr: 0PVH62
Bemerkung: UPS Account 69A081
Versandart: unfrei UPS Acc. 69A081
Zahl.-Bed.:
Lieferbed.: Ab Werk
Spediteur:
SLB-Nr:
Vers. an: 00010556 **Abladeort:**

Bei Korrespondenz und Rückfragen bitte immer mit angeben

LS-Nr.: A0183976
Kundennr.: 20211121
Auftrags-Nr.: VS65229
Auftrags-Dat.: 01/07/13
USt.-ID: DE276905993

Pos	Artikelnummer	Charge/Serie	Menge	ME	Liefertermin	Nettogewicht
2	EN6114K4Y-8 VERI-LITE EN6114K4Y8	prEN6116 16637416	250 250	St		0,000 kg
Summe Netto:						0,000 kg

Abmessungen			Paket	
Länge	Breite	Höhe	Nummer	Bruttogewicht
0,00	0,00	0,00		00,00
1Z6758276852985066/UPS				



CERTIFICATION OF CONFORMANCE AND AFFIDAVIT

Seller hereby certifies that the raw materials used in the performance of this contract meet the chemical and physical requirements of applicable material and/or procurement specifications.

Seller further certifies that metallurgical examinations and physical tests of finished product, when required by contract, are reported. Metallurgical and physical test reports are on file and available for examination by customer.

For actual individual physical and chemical test results, identifiable by part number, inspection lot number and material supplier's heat number for the inspection lot from which shipment was made, refer to seller's certified test report, if applicable.

Seller further certifies that dimensional, fluorescent penetrant or magnetic particle inspections have been performed as required by applicable drawings and/or specification requirements. Records of such inspections are available upon request.

The Quality Management System arrangements in respect of these supplies comply with the requirements of BAE SYSTEMS, Approval No. RALOA/00186/3 and BAE/AG/30117/MAA and Airbus SAS, Approval No. 90972 and Saab AB ISO 9002, Approval No. 2001-G.113. Fairchild Fasteners Europe - VSD GmbH holds ISO 9001:2008; EN 9100:2009 Certification and PRI/NADCAP SAE AS 7003 for Materials Testing, Approval No. 117033.

Fairchild Fasteners Europe - VSD GmbH

Quality Assurance

Sämtliche Verkäufe und Lieferungen erfolgen ausschließlich nach Maßgabe der Allgemeinen Verkaufs- und Lieferbedingungen der Fairchild Fasteners Europe - VSD GmbH

Attention: The copying of extracts of this certificate is inadmissible!
Falsified, fictitious or fraudulent statements or entries may be punished as a felony under United States federal law.

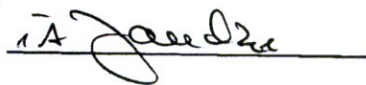
Laboratory Test Report No.: B201403653 LOT NO.: 16637416

The parts contained in this shipment meet the requirements of the applicable drawings and specifications.

Inspection records are on file and are available on request of the procuring agency.

Negatives of metallurgical mounts are retained 10 years for review.

Reviewed by



Date 07.03.2014
Setup Date 07.03.2014

Customer: **BE Aerospace Consumables**

Material: **Ti6AL-4V SMART COIL**

P.O.NO.: **0PVH62**

Mat'l Spec.: **AMS4928S/AMS4967K/
VSM1365L**

Part Number: **EN6114K4Y-8 Rev.P7 01.08.2010
EN6114K4Y8**

Prod. Spec.: **EN6116, Rev. 01.09.10 P4;**

Quantity: **250**

NDT: **ASTM E 1417/E1417M,
Rev.11**

Lot Quantity: **1030**

Threads: **AS8879, Rev. 01.08.04 D**

Heat. No.: **PVD2173**

Request for Deviation No.:

HeatTreatment Spec.: **AMS2801**

Remarks: **VS65229**

Raw Material Lot. No.: **R778750**

Surface: **Aluminium pigmented coating per EN4473
Cetyl alcohol EN6117
Colour code WHITE on thread end**



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Laboratory Test Report No.: B201403653

LOT NO.: 16637416

Micro Examination	Fatigue	Tensile	Shear
Sample Size 4	NA	Req. Value NA	Req. Value NA
Material Type TI6AL-4V SMART COIL	Req. Cycles	N/DIA/N/mm ² /Loc.	N/DIA/N/mm ²
Surface Contamination conform			
Grain Size NA			
Macro Structure conform			
Micro Structure conform			
Magnification 100x			
Etching Solution: 5% HF, 95% H ₂ O dest.			
Discontinuities conform			
Broach Cracks none			
IGC none			
Plate Thickness conform per Spec. see surface page 1			
Torque			
Req. Value NA			
Sample Size			
Analyses			
Hardness ()			
Req. Value NA	Specification:	Specification:	Specification:
Sample Size	Machine / Model:	Machine / Model:	Machine / Model:
Analyses	Visa:	Visa:	Visa:
Max.	Remark:	Remark:	Remark:
Min.			
Ø =			
σ _{n-1} =			
Remark:			
	Stress Durability: / NA /		
Hydrogen (ASTM E 1447, Rev. 09)			
Max. per Spec.: 125 ppm	Salt Spray Testing: (NA /) Sample Size:		
Actual: 62 ppm			

AJW aviation

17 FEB 2014

Certified True Copy
Inspection Authorisation AJW 01.



Perryman company
213 Vandale Drive Houston, PA 15342 USA
phone: 724-746-9390 fax: 724-746-9392

CERTIFIED TEST REPORT

Customer: **ALCOA FASTENING SYSTEMS / FAIRCHILD**
VSD GmbH
STEVEN 3
31135 HILDESHEIM DEUTSCHLAND

Heat No: **PVD2173**
Melting Source: **PERRYMAN COMPANY**
Work Order No: **069045**

Date: **06-05-13**
Weight: **352 LBS.**

Customer Order No: **7032349-119**
Customer Order Date: **04-22-13**
Specification: **VSM-1365 Rev L, AMS 4967K, AMS 4928S**

Product: **TI-6AL-4V .27975/.28025" DIA. 3X COIL**
ANNEALED 760 C - 2 HOURS

Chemistry: **Wt %**

ASTM E 1447: Post processing Hydrogen Determination H: .0010

Metallographic Examination:

ASTM E 407: Microstructure - Equiax alpha-beta

ASTM E 407: Surface Contamination - No alpha case

Mechanical Properties:

Condition	Tensile Results - ASTM E8		Tensile Results - ASTM E8		Shear Results	
	Tensile Strength Mpa	.2% Yield Strength Mpa	Elongation 4D %	Reduction Of Area %	NASM1312-13 Shear Strength, Mpa	0 90
Annealed 760 C - 2 hours	997	892	20	50		
	997	895	21	52		
Solution treated and aged	1210	1120	11	55	731	736
954 C - 1 hour - WQ	1205	1123	13	56	724	726
538 C - 4 hours - AC					748	745

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17 FEB 2014

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Inspection Authorisation AJW 01.

This is to certify that all test results conform to the specifications listed above and that all tests required were performed by Perryman Company. Attached is a copy of the Ingot Chemistry.

The test results relate only to the lots tested and are contained in the records of Perryman Company. The Certified Test Report cannot be reproduced except in full, without written approval.

Zachary S. Dragash
Zachary S. Dragash
Laboratory Manager

02778750



Perryman company

625 Technology Dr., Coal Center, PA 15423 USA

phone: 724-746-9390 Fax: 724-746-9392

SHIP TO

Perryman Company
213 Vandale Dr
Houston, PA 15342

CERTIFICATE OF TEST

For TITANIUM INGOT

WORK ORDER

010837

HEAT NUMBER

PVD2173

QUANTITY												PCS
12125 Lbs												1
DESCRIPTION												
Grade: Ti6Al4V												
Size: 30"												
Form: Ingot												
SPECIFICATION CAPABILITY												
P-101 Rev 4												
Chemistry (WT%) Top												
O	N	C	Fe	Al	V	Si	Cu	Pd	Y	H	B	Ru
.15	.008	.018	.19	6.02	4.07	.018	.006	<.002	<.001	.0004	<.001	<.001
Chemistry (WT%) Bottom												
O	N	C	Fe	Al	V	Si	Cu	Pd	Y	H	B	Ru
.16	.008	.016	.18	6.00	4.06	.018	.005	<.002	<.001	.0004	<.001	<.001
Comments												
Melting Process: EBCHR-VAR												
Calculated Beta Transus T/B: 1808F/1811F												
Calculated Beta Transus T/B C: 987C/988C												
Residual Elements, total < .3%												
Residual Elements, each < .1%												
Balance Titanium.												
Melted in the United States of America.												
The material is free of radioactive and mercury contamination.												
Oxygen/Nitrogen tested in accordance with ASTM E1409.												
Carbon tested in accordance with ASTM E1941.												
Hydrogen tested in accordance with ASTM E1447.												
B, Y, Pd, Ru tested BY ICP.												
Metallics by Spark-AES.												

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Accredited
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Materials Testing Laboratory

Page 1 of 1

This material conforms to the chemistry and quality system requirements of the specifications referenced. The results relate only to the lot tested and the results are contained in the records of Perryman Company.
The certificate of test cannot be reproduced except in full without the written approval of the laboratory, and the recording of false, fictitious, or fraudulent statements or entries on this document may be punished as a felony under federal law.

Terrance J. Marth
Laboratory Supervisor